

NEW CENTRAL AND SOUTH AMERICAN LEAFHOPPERS OF THE
"BAHITA" GROUP (HOMOPTERA: CICADELLIDAE:
DELTOCEPHALINAE)

DWIGHT M. DELONG

Department of Entomology, The Ohio State University, Columbus, Ohio
43210.

Abstract.—Seven new species and a new genus of the "Bahita" group of Deltocephaline leafhoppers, *Perubahita confusa* n. sp., *Angubahita atra*, n. gen., n. sp., *Megabahita patula*, n. sp., *Parabahita lamina*, n. sp., *P. thalla*, n. sp., *Frequenamia particula*, n. sp., and *F. atrata*, n. sp., are described.

The genus *Bahita* was described by Oman (1936). DeLong (1947) described the genus *Frequenamia* from Mexican specimens. Several related genera (including *Parabahita*) were described by Linnavuori (1959). The "Bahita" group of genera was treated by Linnavuori and DeLong (1978a, b). A new genus and seven new species are described in this paper. All types are in the DeLong collection.

Perubahita confusa DeLong, New Species

Figs. 1-6

Description.—Length of male 6 mm, female unknown. Crown longer at middle than next to eyes, $\frac{1}{2}$ as long at middle as wide at base between eyes. Crown dull white, a dark brown spot at each side of apex which becomes paler brown caudally, and both spots merge near middle of crown. With dark brown spot, each side, between eye and middle line at base. Basal $\frac{1}{2}$ of crown mostly tinted with orange brown. Pronotum brown with irregular black markings and a narrow whitish transverse band across middle of pronotum. Scutellum with basal angles mostly dark brown, with a small white triangle in each basal angle, apical $\frac{1}{3}$ white. Forewing pale brownish subhyaline with a few dark brown spots; veins mostly dark brown.

Male genital plates $3\times$ as long as wide at middle, apex narrow, bluntly pointed, styles with apophyses slender, curved outwardly. Aedeagus curved, tapered from rather broad base to slender pointed apices. Apical portion composed of 2 lateral, contiguous portions. Pygofer narrowed apically and rounded.

Holotype.—♂, Boa Vista, Mu Castanbal, Pará, Brazil 13-I-1965, W. France coll.

Comments.—*Perubahita confusa* is related to *P. longifal* Linnavuori and DeLong and can be separated by the small, rather slender, pointed, curved aedeagus.

Angubahita DeLong, New Genus

Description.—Head as wide as pronotum, crown produced, rounded apically, almost as long at middle as wide at base between eyes, $\frac{1}{3}$ longer at middle than length at eyes, $\frac{3}{4}$ as long as pronotum. Crown angled with face, margin, thick. Forewings parallel sided, longer than abdomen, with 3 closed apical cells. Crown, pronotum, and scutellum marked with bright red spots. Style triangular, aedeagus bifid apically. Species small in size, male 4 mm in length and slender.

Type-species.—*Angubahita arta* DeLong, new species.

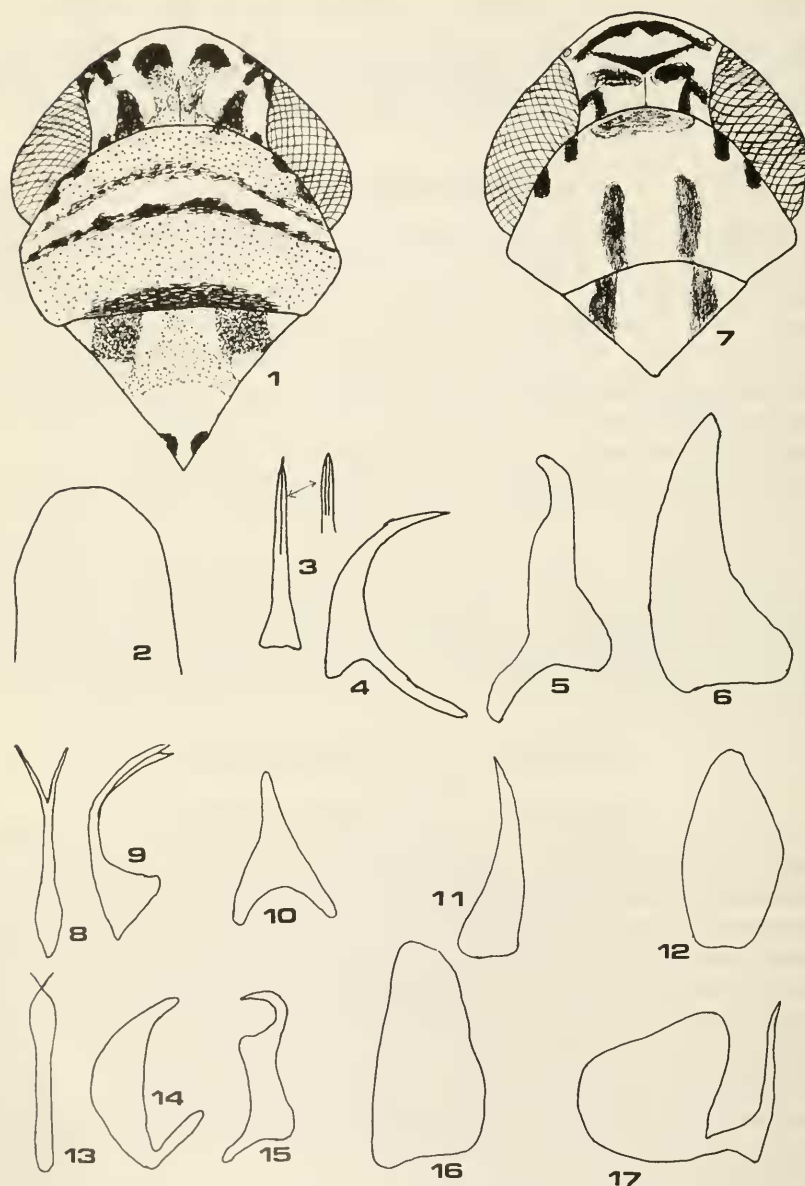
A key to the known genera of the *Bahita* group was published by Linnavuori and DeLong (1978a). The genus *Angubahita* would key out to couplet 6, *Taperinha*. The species of *Taperinha* are larger, more robust than *Angubahita* with a more broadly angled crown. The eyes are proportionately larger in *Angubahita*, occupying about $\frac{1}{2}$ of the dorsal surface of the head, while in species of *Taperinha* the eyes occupy about $\frac{1}{3}$ of the head area, and have a crown which is $1\frac{1}{2}$ to twice as wide at base as long at middle.

Angubahita arta DeLong, New Species

Figs. 7-12

Description.—Length of male 4 mm, female unknown. Crown roundly produced, almost as long at middle as wide between eyes at base. Ocelli large. Crown whitish, a black transverse stripe between ocelli just above marginal white band. The black stripe surrounding ocelli, narrowed at middle and thickened on basal side, each side of middle. A black triangular area, with pointed apex basad, on middle of crown. A red area at each side of apex of black triangle and a black area along basal portion of each eye. Pronotum with a reddish area at each side of apical portion, and with 4 black spots, 2 behind each eye at base. Scutellum grayish brown, basal angles mostly reddish. Forewing grayish subhyaline, veins brown, color intensified on costal veinlets, claval veinlets at commissure, and at base of apical cells.

Male genital plates $5\times$ as long as wide at middle, apices narrowed, sharply pointed. Style triangular, longer than wide, apical portion straight, narrow, finger-like, apex rounded. Aedeagus narrow, except near base, curved, apical $\frac{1}{2}$ divided into 2 narrow divergent processes. Pygofer narrowed, rounded apically.



Figs. 1-17. 1-6, *Perubahita confusa*. 7-12, *Angubahita arta*. 13-17, *Megabahita patula*. 1, 7, Head, pronotum, scutellum, dorsally. 2, 12, 17, Pygofer laterally; apical portion in Fig. 2. 3, 8, 13, Aedeagus ventrally. 4, 9, 14, Aedeagus laterally. 5, 10, 15, Style laterally. 6, 11, 16, Plate ventrally.

Holotype.—♂, Las Cumbres, Panama, at light, 23-VI-1975, H. Wolda coll.

Megabahita patula DeLong, New Species

Figs. 13-17

Description.—Length of male 5.5 mm, female unknown. Crown $\frac{3}{5}$ as long at middle as wide at base between eyes. Crown with apical $\frac{1}{3}$ white, with a black spot at each side of apex. Remainder of crown reddish brown at each side of a median grayish area. Pronotum dark gray, anterior $\frac{1}{3}$ brownish. Scutellum grayish, apical $\frac{1}{3}$ white. Forewing grayish yellow, costal veinlets broadly brown, veins brown.

Male genital plates $2\times$ as long as wide at middle, apex rather broad, rounded. Style with apophysis narrow, curved dorsally. Aedeagus broad at middle (in lateral view) narrow at base and with a slender apex bearing 2 short apical processes. Pygofer bearing a base-apical process, enlarged, and bearing a ventrally angled tooth near base, extending dorsally beyond margin of pygofer, apical portion slender, tapered, sharp pointed.

Holotype.—♂, Panama, El Llano, Carte Rd., 8-X-1974, H. Wolda coll.

Comments.—*Megabahita patula* is related to *M. irroratus* (Osborn) and can be separated by the more broadened (lateral view) and the more basally broadened pygofer spine.

Parabahita lamina DeLong, New Species

Figs. 18-23

Description.—Length of male 5.5 mm, female unknown. Crown short, broadly rounded, appearing parallel margined. Pale brownish, crown with a marginal, narrow, black, transverse band. A straighter, narrow, transverse band between ocelli, and portions of a basal, wider, broken, black band next to eyes. Pronotum rather dark brownish with blackened areas. Scutellum pale brown with darker brown angles. Forewing dull yellowish, subhyaline, veins pale to dark brown, some broadly embrowned.

Male genital plates $2\frac{1}{2}\times$ as long as wide at middle, apices rounded. Style triangular, with the basal portion broad, apical portion thumblike, apex narrow, rounded. Aedeagus curved, sickle-shaped bearing a nonsclerotized, saucer-shaped disc attached to the basal portion, extending across opening between base and pointed apex. Apical portion of aedeagus divided, apices pointed. Connective with basal, divided portion twisted at middle. Pygofer bearing a long, slender, tapered, apical process which arises basocaudally and extends dorsally beyond dorsal portion of pygofer.

Holotype.—♂, Santa Cruz, Bolivia, Exper. Sta. Saavedra, 350 m, 12-IV-1979, 131Bb, D. Foster, V. Gongalez, and I. Caballero colls., at trap light. Paratype male same data as holotype.

Comments.—*Parabahita lamina* is related to *P. vesenyii* Linnavuori and

can be separated by the slender, smooth tip of the apical portion of the pygofer appendage, the rounded, nonsclerotized vertical disc at the base of the aedeagus, and the twisted, basal portion of the connective.

Parabahita thalla DeLong, New Species

Figs. 24-28

Description.—Length of male 6 mm, female unknown. Crown short, broadly rounded, appearing parallel margined. Crown pale brown with a curved, transverse, dark brown, narrow band, broadened at middle, just above margin. A very narrow, straight, black, transverse band between ocelli. A broader brown band between eyes, near base, slightly broken at middle. Pronotum pale brown on anterior $\frac{1}{3}$, posterior $\frac{2}{3}$ dark brown. Scutellum with dark brown basal angles surrounded by white. Median longitudinal portion pale brown.

Male genital plates $3\frac{1}{2}\times$ as long as wide at middle, apices narrowed, bluntly pointed. Style elongate, narrow, apical $\frac{1}{2}$ long, narrow, slightly curved, apex rounded. Aedeagus sickle-shaped, apical portion divided into 2 pointed processes. Pygofer bearing a long curved apical process, the apical $\frac{1}{3}$ of which is broadened and pointed, spear-shaped.

Holotype.—♂, Santa Cruz, Bolivia, 2-IV-1979, 350 m, D. Foster, V. Gonzalez, and I. Caballero colls, at trap light. Paratype male same data as holotype.

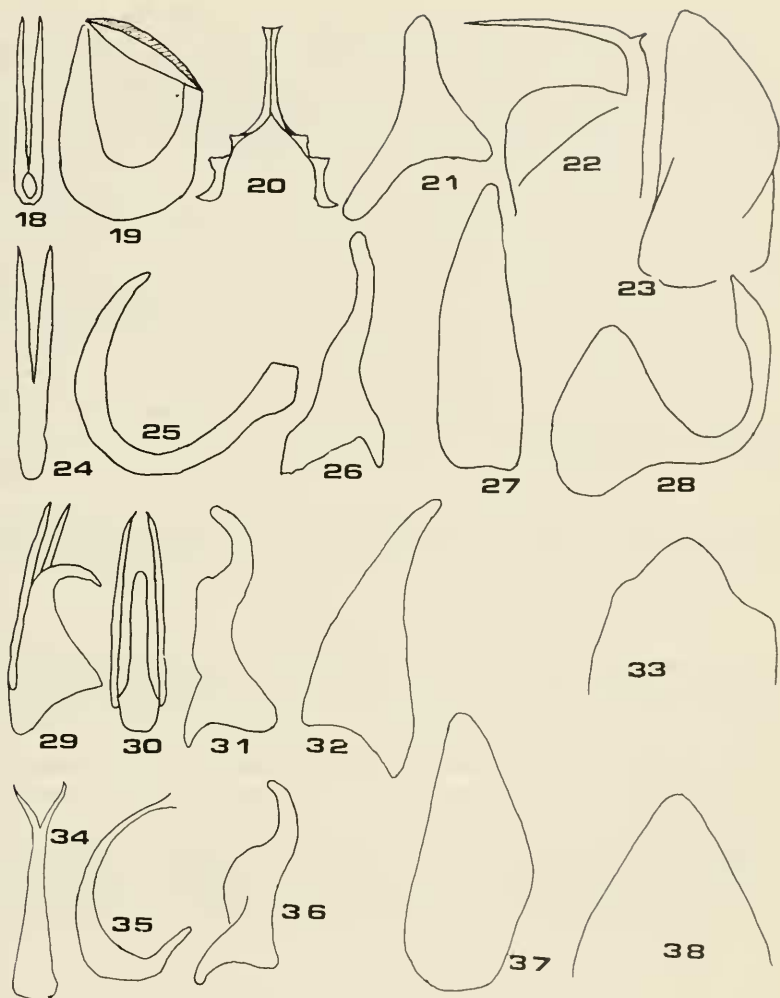
Comments.—*Parabahita thalla* is related to *P. vezenyii* Linnavuori and can be separated by the long slender apophysis of the style and the broadened spearlike apical portion of the pygofer apical process.

Frequenamia particula DeLong, New Species

Figs. 29-33

Description.—Length of male 5.5 mm, female unknown. Crown produced and rounded, $3\times$ as wide at base between eyes as long at middle. Crown white, a brown marginal line. A dark brown narrow transverse band just distal to a narrow whitish band between the 2 brownish bands. Basal $\frac{1}{2}$ of crown, pale brown. Pronotum dark brown with paler brownish mottling. Scutellum with basal $\frac{2}{3}$ brown, apical $\frac{1}{3}$ white. Forewing pale brownish subhyaline, with numerous white areolar spots, 5 prominent spots on clavus, veins mostly pale brown.

Male genital plates more than $3\times$ as long as wide at middle, apex narrowed, bluntly pointed. Style with apophyses narrow, rounded. Aedeagus rather broad at base, narrowed to a curved, narrow, bluntly pointed apex, with 2 straight, long, slender processes attached laterally, which extend caudally beyond curved apex of aedeagus. Pygofer narrowed and rounded apically.



Figs. 18–38. 18–23, *Parabahita lamina*. 24–28, *P. thalla*. 29–33, *Frequenamia particula*. 34–38, *F. atrata*. 18, 24, 30, 34, Aedeagus ventrally. 19, 25, 29, 35, Aedeagus laterally. 20, Connective ventrally. 21, 26, 31, 36, Style laterally. 22, 33, 38, Pygofer laterally, apical portion. 28, Pygofer laterally. 23, 27, 32, 37, Plate ventrally.

Holotype.—♂, Panama, Chiriqui, Fortuna, 1050 m, 26-IX-1976, H. Wolda coll.

Comments.—*Frequenamia particula* is related to *F. crassistylus* Linna-
vuori and can be separated by the two long slender processes attached to
the aedeagus extending caudally beyond the apex of aedeagus.

Frequenamia atrata DeLong, New Species

Figs. 34-38

Description.—Length of male 4 mm, female unknown. Crown broadly rounded, twice as wide at base between eyes as long at middle. Crown declivated, margin thick, rounded to front. Anterior $\frac{1}{2}$ of crown with deep lateral striae. Crown brownish, apical $\frac{1}{2}$ black, basal $\frac{1}{2}$ brownish. Pronotum black with brownish, widened punctate spots. Scutellum black with pale brownish spots on central portion. Forewing appearing black, a few brownish areas on corium, apical, and antepical cells.

Male genital plates more than twice as long as wide at middle, apex narrowed, bluntly rounded, style with apophyses narrow, slightly curved, extending almost caudally. Aedeagus rather narrow, curved, tapered from base to slender apex, divided apically into 2 divergent processes. Pygofer narrowed apically, rounded.

Holotype.—♂, Panama, Barro Colorado, at light, 22-IX-1975, H. Wolda coll.

Comments.—*Frequenamia atrata* is related to *F. lacerae* (Signoret) and can be separated by the unbranched apical process of the aedeagus.

LITERATURE CITED

- DeLong, D. M. 1947. A new genus (*Frequenamia*) and species of Mexican leafhoppers related to *Mesamia* (Homoptera: Cicadellidae). Bull. Brooklyn Entomol. Soc. 42: 63-64.
- Linnavuori, R. 1959. Revision of the Neotropical Deltocephalinae and some related subfamilies (Homoptera: Cicadellidae). Ann. Zool. Soc. Vanamo 20: 1-370.
- Linnavuori, R. and D. M. DeLong. 1978a. Neotropical leafhoppers of the "Bahita" group (Homoptera: Cicadellidae: Deltocephalinae), a contribution to the taxonomy. Brenesia 14/15: 109-169.
- . 1978b. Some new or little known Neotropical Deltocephalinae (Homoptera: Cicadellidae). Brenesia 14/15: 227-247.
- Oman, P. H. 1936. A generic revision of American Bythoscopinae and South American Jassininae. Univ. Kans. Sci. Bull. 24: 343-429.